WHAT IS CLAIMED IS:

1.   A method for establishing a media session between terminals having
incompatible media characteristics, comprising:

transmitting a first media session description associated with a first terminal
to a network element;

comparing the first media session description to a second media session
description associated with a second terminal;

determining an incompatibility between the first and second media session
descriptions; and

invoking an adaptation server by the network element to adapt media flow
between the first and second terminals, wherein the adaptation server alters the first media
session description to meet capabilities of the second terminal and alters the second media
session description to meet capabilities of the first terminal.

2.   The method according to Claim 1, wherein the first media session
description is propagated by a Third Generation Partnership Project (3GPP) Internet
Protocol Multimedia Subsystem (IMS) network.

3.   The method according to Claim 1, wherein determining an incompatibility
comprises determining media capabilities identified by the first and second media session
descriptions.

4.   The method according to Claim 3, wherein the media capabilities include
codec, resolution, frame rate, and bit rate definitions.

5.   The method according to Claim 4, wherein the incompatibility is
determined by a serving proxy to the first terminal.

6.   The method according to Claim 5, wherein the serving proxy to the first
terminal invokes the adaptation server.

1   7.   The method according to Claim 4, wherein the incompatibility is
2   determined by the adaptation server.

1   8.   The method according to Claim 4, wherein the incompatibility is
2   determined by a serving proxy to the second terminal.

1   9.   The method according to Claim 8, wherein the serving proxy to the second
2   terminal invokes the adaptation server.

1   10.   The method according to Claim 1, wherein the alteration of the first media
2   description includes:
3   changing media parameters to meet media capabilities associated with the second
4   terminal; and
5   changing transport parameters to match an IP address and port number associated
6   with the adaptation server.

1   11.   The method according to Claim 1, wherein the alteration of the second
2   media description includes:
3   changing media parameters to meet media capabilities associated with the first
4   terminal; and
5   changing transport parameters to match an IP address and port number associated
6   with the adaptation server.

1   12.   An adaptation system for peer-to-peer multimedia sessions, comprising:
2   a network proxy coupled to receive media session definitions indicative of
3   first and second terminal capabilities; and
4   an adaptation server coupled to receive the media session definitions from
5   the network proxy and coupled to provide adaptation of media streams and associated
6   media session definitions between the first and second terminals, wherein the media
7   streams are redirected to the adaptation server in response to an incompatibility discovery
8   between the capabilities of the first and second terminals.

1   13.   The adaptation system of Claim 12, wherein the network proxy receives the

2   media session definition indicative of the first terminal capability via a Session Initiation

3   Protocol (SIP) message.

1   14.   The adaptation system of Claim 13, wherein the network proxy receives the

2   media session definition indicative of the second terminal capability via a SIP proxy.

1   15.   The adaptation system of Claim 13, wherein the network proxy receives the

2   media session definition indicative of the second terminal capability via a registrar server.

1   16.   The adaptation system of Claim 13, wherein the network proxy receives the

2   default media session definition indicative of the second terminal capability via a

3   registration message from the second terminal.

1   17.   The adaptation system of Claim 13, wherein the network proxy receives the

2   default media session definition indicative of the second terminal capability via an options

3   query.

1   18.   The adaptation system of Claim 12, wherein the incompatibility discovery

2   is made by the network proxy.

1   19.   The adaptation system of Claim 18, wherein the network proxy invokes the

2   adaptation server to change the media session definition of the first terminal to match

3   media capabilities of the second terminal and to change the media session definition of the

4   second terminal to match media capabilities of the first terminal.

1   20.   The adaptation system of Claim 19, wherein the network proxy invokes the

2   adaptation server to change the media session definition of the first and second terminals to

3   match transport information and adaptation capabilities associated with the adaptation

4   server.

1   21.   The adaptation system of Claim 20, wherein the transport information

2   includes IP address and port number.

1   22.   The adaptation system of Claim 12, wherein the incompatibility discovery

2   is made by the adaptation server.

1   23.   A proxy within a network used to facilitate an adaptation decision,

2   comprising:

3   means for receiving a capability description associated with a first terminal;

4   means for receiving a capability description associated with a second

5   terminal;

6   means for comparing the capability descriptions of the first and second

7   terminals;

8   means for determining an incompatibility between the first and second

9   terminals;

10   means for transmitting the capability descriptions to an adaptation server for

11   alteration by the adaptation server; and

12   means for redirecting media streams to the adaptation server to adapt the

13   media streams in response to the incompatibility between the first and second terminals.

1   24.   A computer-readable medium having instructions stored thereon which are

2   executable by a proxy for facilitating media stream adaptation by performing steps

3   comprising:

4   receiving a capability description associated with a first terminal;

5   receiving a capability description associated with a second terminal;

6   comparing the capability descriptions of the first and second terminals to

7   determine an incompatibility between them;

8   transmitting the capability descriptions to an adaptation server for

9   modification; and

10   redirecting the media stream to the adaptation server in response to the

11   modified capability descriptions.

1   25.   The computer-readable medium according to Claim 24, wherein the step of

2 comparing the capability descriptions comprises comparing an audio-video format

3 variable of a media description line of a Session Description Protocol (SDP) description

4 for both terminals.